



> **CREATING OUR ENERGY FUTURE**

**Digital Orchestration of Renewable Power
a.k.a VPP (Virtual Power Plant)**

pure . energy
trading & origination • virtual power plant • consulting

WHO WE ARE

35+ Years of Experience Corporate / Executive



Diverse Academic Background



Bringing **Experience/Passion** together



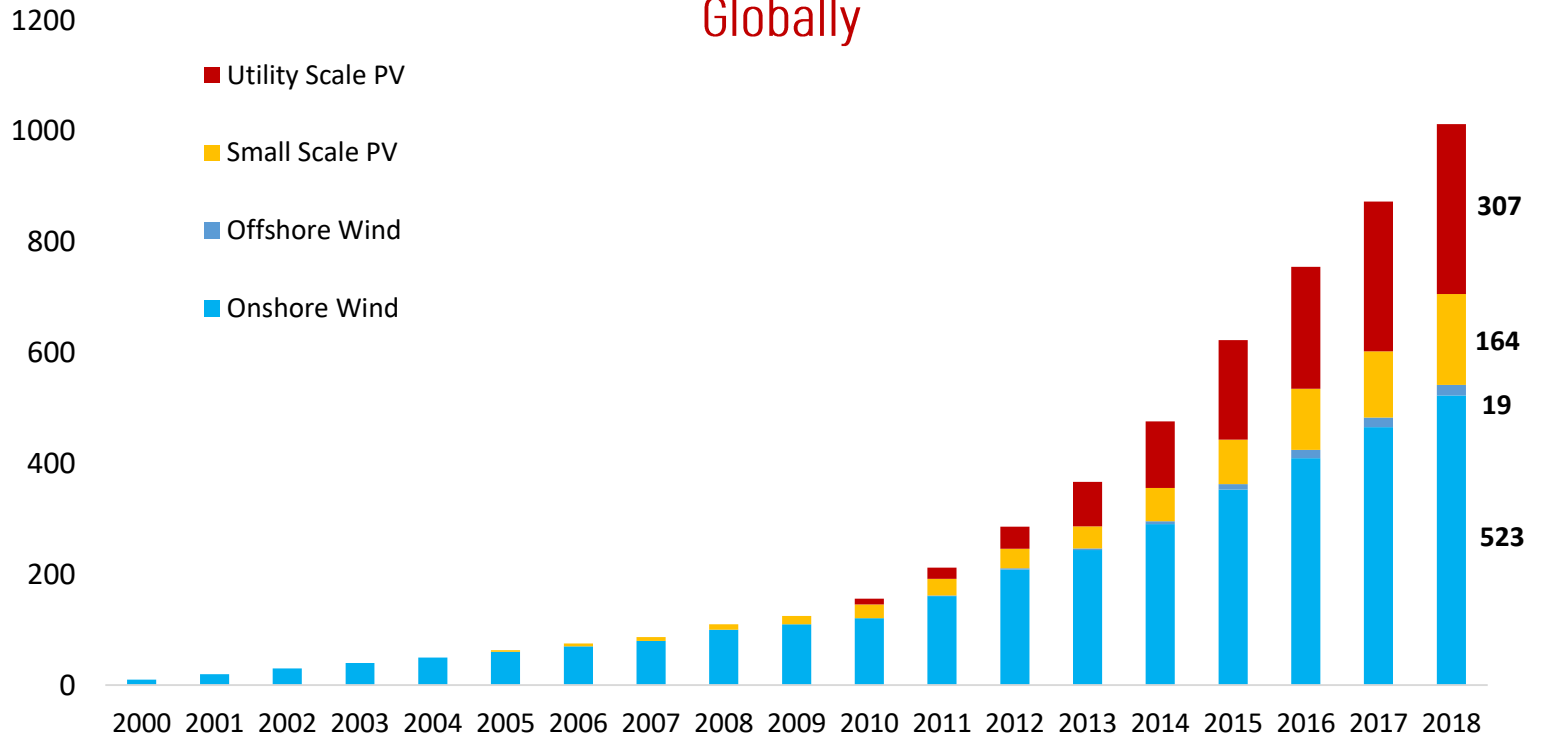
Well Established **Networks**





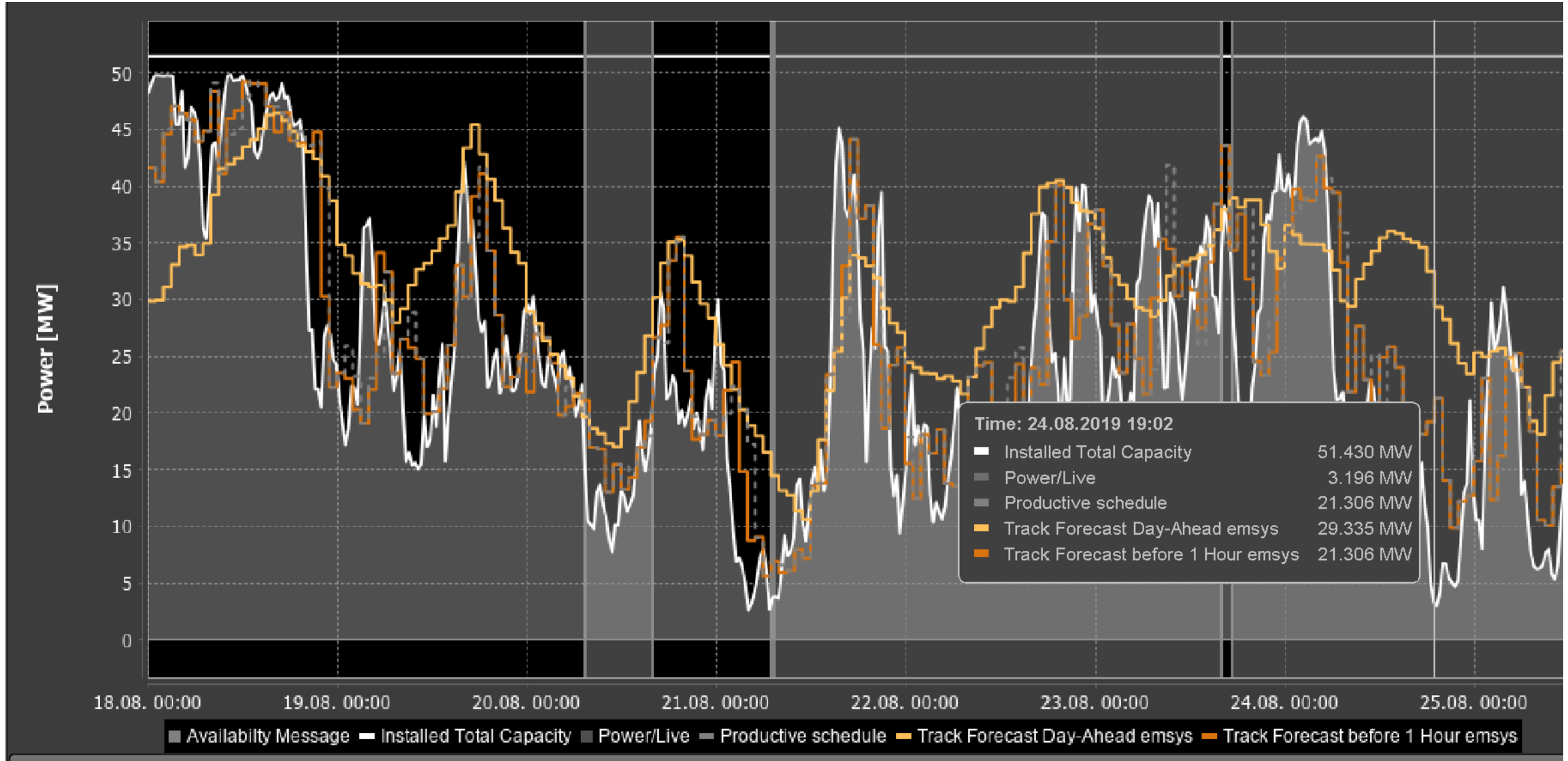
Renewable Energy and The Challenge!

Annual Wind and Solar installations surpassed 1,000 GW
Globally



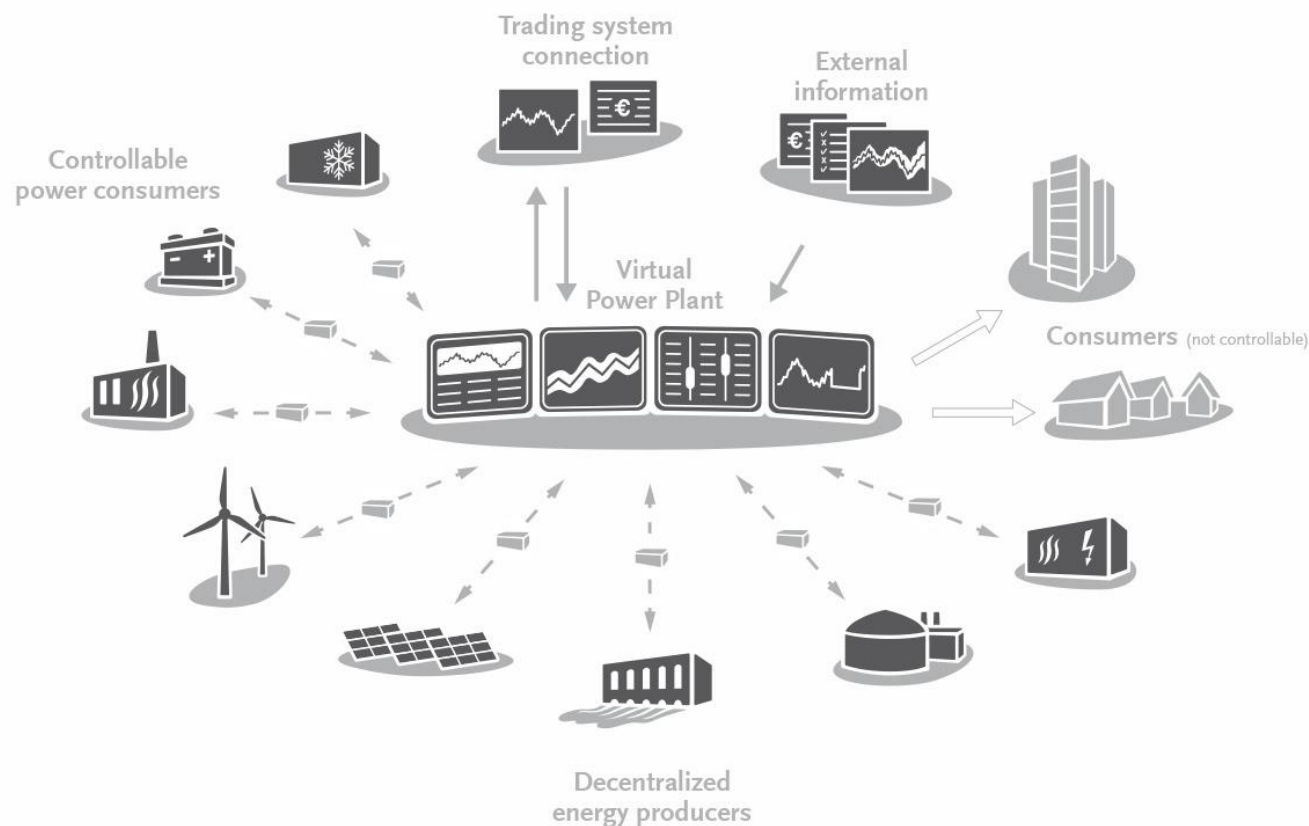
Source: Bloomberg New Energy Finance

Volatility of Generation & Prices



VPP: Sypmphony of Data & Power

The biggest new generation utility of the world without any own asset, possible or myth?



- IoT – Data Connectivity
- Real Time / Accurate and Reliable Data Flow
- Machine Learning Models
- Big Data
- Automated/Alghoritmich Trading
- Behavioral Economics
- Market Design & Structure/Needs

Search for the Optimum!

Supply & Demand

- Real Time monitoring
- Outages and Availability data
- Schedules

Technical Specs

Forecasts updated in every **15 min**

Forecast w. Machine Learning

Real-time Weather Forecast



pure.energy AGGREGATOR/VPP

Algorithmic Trading

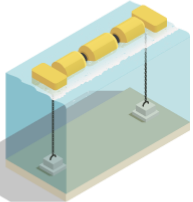
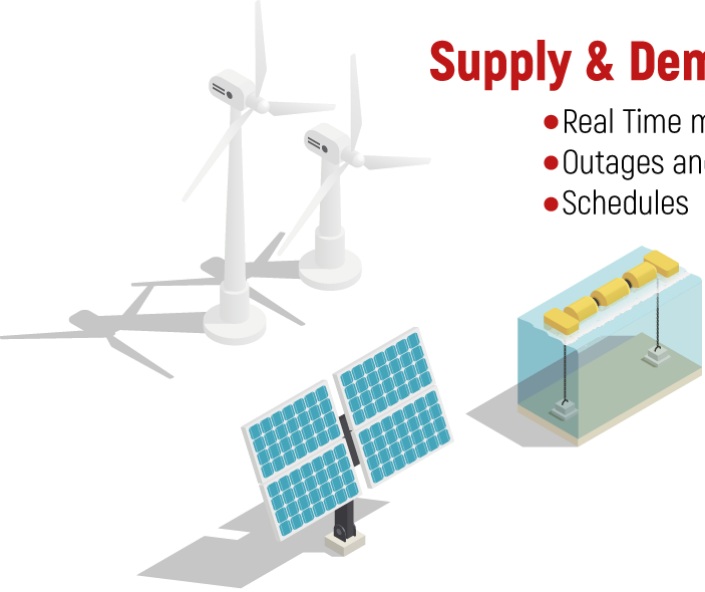
24/7
Intraday

Market Analysis & Optimization

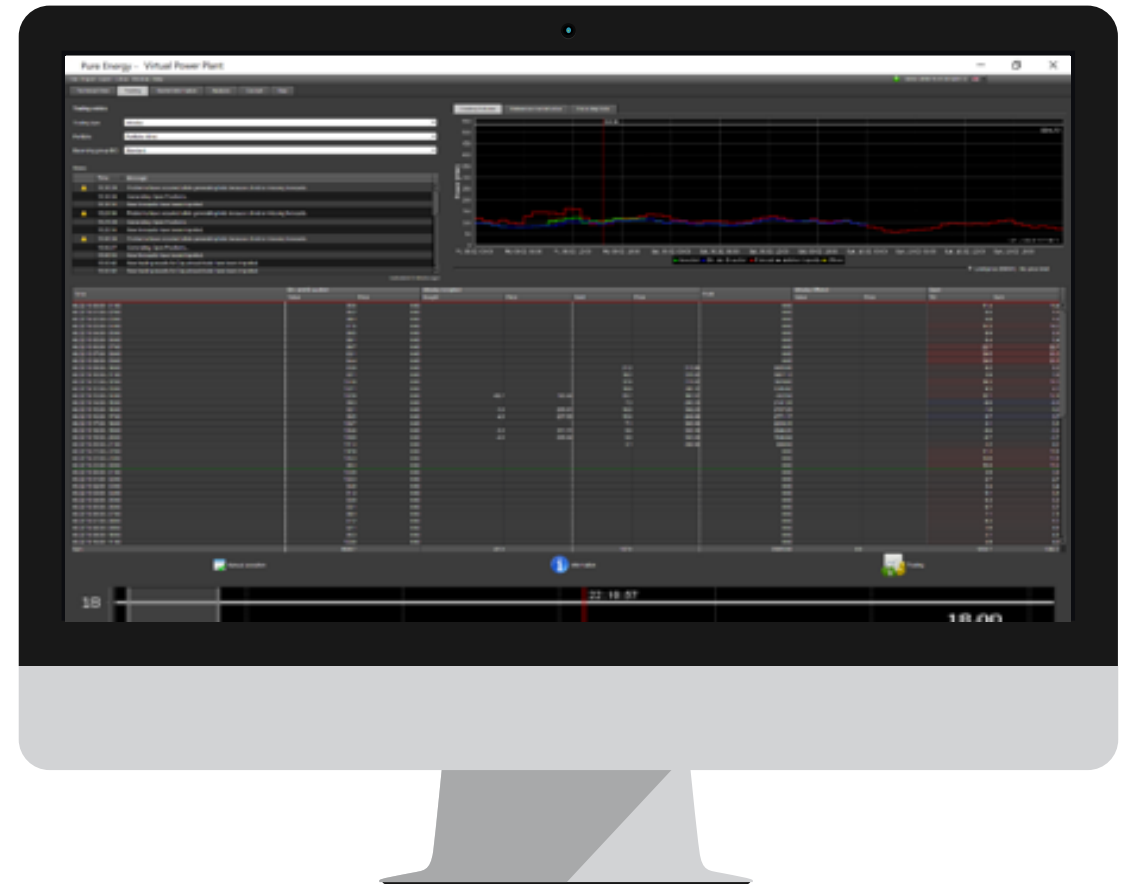
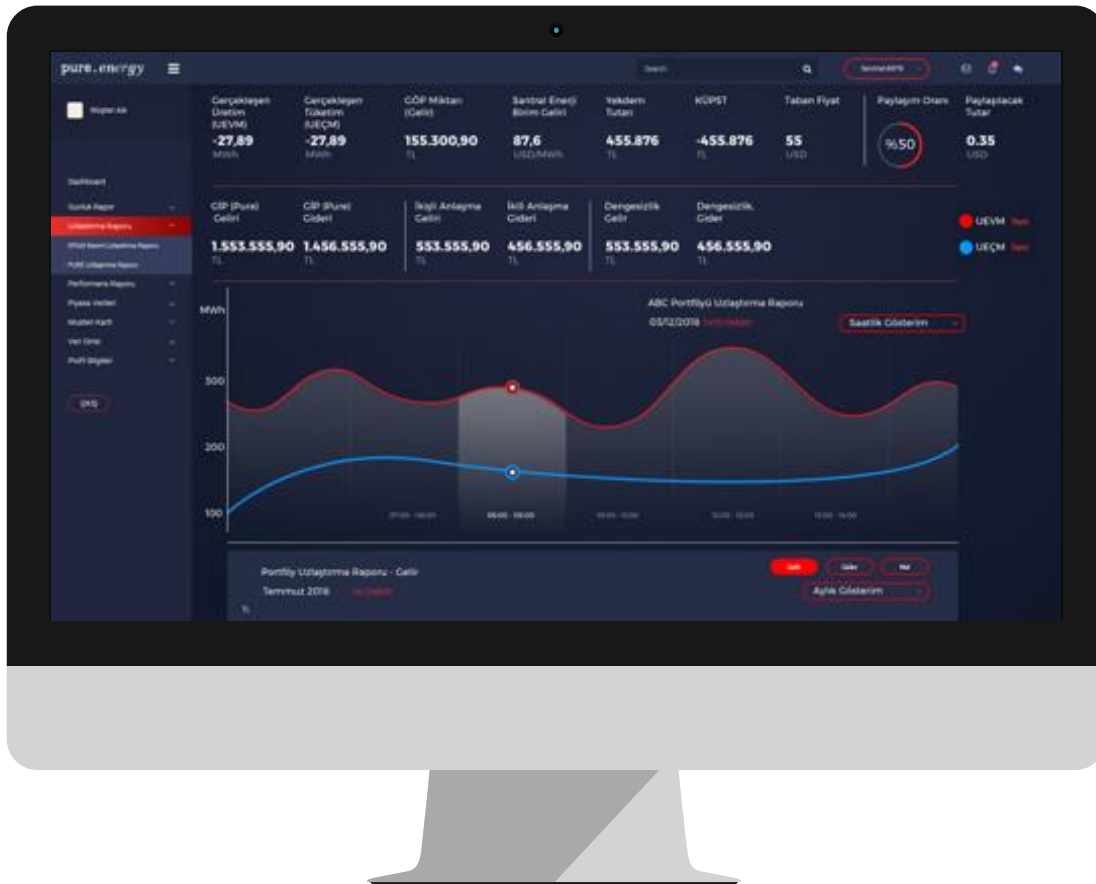
Market Operator

Reporting

Transmission System Operator



Pure VPP Platform / Dashboard





Renewable Energy and The Challenge!

1. Contribution to security of supply

- Effective **integration of renewable** assets into the grid
- Reducing imbalances of renewables to **avoid brownout/blackouts**

2. Enabler for financial investors targeting renewable

- Handling **trading operations**
- Well-balanced risk management** on behalf of asset owners
- Long-term **predictable cash-flow** through secured unit price
- Opportunity to **transfer operational costs & risks**

3. Providing Operational Excellence for the Stakeholders

- Concentration on a niche area for the sake of **highest operational quality**
- Auto and Algorithmic Trading** in Power Markets to avoid human errors
- Center of excellence** for renewable assets around the globe



WHAT IS NEXT?

Expansion of Virtual Power Plant business into new markets

Undertaking the balancing of a 1.200 MW renewable portfolio in **Germany** in Q4 2019

Exploring potential new markets such as **UK, South Korea, India and Japan.**

Developing Complimentary / Innovative Business' around the VPP

Aggregation of **demand side energy management** to the portfolio

Cooperation with a global telecom operator for **digital retail business**

Expansion of **renewable energy credit business** lead and entry into corporate **renewable PPA business**

pure . energy

trading & origination • virtual power plant • consulting

pure
adjective \ˈpyur\

Having exactly the talents or skills needed for a particular role. Clean and not harmful in anyway. Free from harshness or roughness and being in tune. Not mixed with anything else.

• energy
noun \ en-er-gy | \ˈe-ner-jē\

Usable power. Dynamic quality. The physical or mental strength that allows you to do things. Ability to be active. The capacity of acting or being. Vigorous exertion of power.